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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/960,584	09/21/2001	Douglas C. Watson	10636-003-999	5442
24341	7590	03/09/2004	EXAMINER	
MORGAN, LEWIS & BOCKIUS, LLP. 3300 HILLVIEW AVENUE PALO ALTO, CA 94304			KIM, PETER B	
			ART UNIT	PAPER NUMBER

2851

DATE MAILED: 03/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/960,584

Applicant(s)

WATSON ET AL.

Examiner

Peter B. Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5,6,8,9 and 34-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6,8,9 and 34-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Applicant's arguments filed on Jan. 8, 2004 have been fully considered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 2, 5, 6, 8, 9, and 34-44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claims 1, 37 and 41, "at least once degree of freedom perpendicular to the surface" is unclear because at least implies one or more yet, there is only one perpendicular direction to the surface.

The remaining claims, not specifically mentioned, are rejected for incorporating the defects from the base claim by dependency.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 5, 6, 9, 34, 37, 38, 41 and 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Horikawa et al. (5,991,005).

Horikawa discloses a semiconductor processing system (10) comprising a source of radiant energy (EL), a reticle (R), a wafer or a workpiece (W), a positioning system (20) comprising a frame (21), a table (24) to be positioned with respect to the frame, a first flexible member, connection means or support member (36) that connects the table to a first movable base (23), the first flexible member being resistant to movement in at least one degree of freedom, and flexible in other degrees of freedom (col. 7, lines 45-51), a support structure or a platform (22) that connects the first movable base to the frame; and at least one actuator (34 a-f) connected to the first movable base in the first degree of freedom with respect to the frame (col. 10, line 61 – col. 11, line 2). Horikawa discloses a first actuator means (30) for adjusting the position of the movable member with respect to the frame and second actuator means (34 a-f) for adjusting the position of the table with respect to the frame. Horikawa discloses means (PL) for directing radiant energy onto the workpiece, a first means (30) for adjusting the workpiece with respect to the platform in at least one degree of freedom and a second means (31) for adjusting the position of the workpiece with respect to the platform in additional degrees of freedom. Horikawa discloses the actuators to driving the table in the directions indicated in the claims (col. 10, lines 61-67). The first movable base comprises a magnet and the actuator comprises one or more coil assemblies (col. 9, lines 30-45).

Claims 1, 2, 5, 6, 9, 34, 37, 38, 41 and 42 are rejected under 35 U.S.C. 102(e) as being anticipated by Korenaga et al. (Korenaga) (6,570,645).

Korenaga discloses a semiconductor processing system (col. 1, lines 8-15) comprising a source of radiant energy, a reticle, a wafer or a workpiece, a positioning system (Fig. 8) comprising a frame (502), a table (501) to be positioned with respect to the frame, a first flexible member, connection means or support member (581) that connects the table to a first movable base (561), the first flexible member, which is a spring, being resistant to movement in at least one degree of freedom, and flexible in other degrees of freedom (col. 24, lines 36-45), a support structure or a platform (512X) that connects the first movable base to the frame; and at least one actuator (512X) connected to the first movable base in the first degree of freedom with respect to the frame. Korenaga discloses a first actuator means (511Y, 512Y) for adjusting the position of the movable member with respect to the frame and second actuator means (512X) for adjusting the position of the table with respect to the frame. Korenaga discloses means for directing radiant energy onto the workpiece (inherent in col. 1, lines 8-15), a first means (511Y, 512Y) for adjusting the workpiece with respect to the platform in at least one degree of freedom and a second means (512X) for adjusting the position of the workpiece with respect to the platform in additional degrees of freedom. Korenaga discloses the actuators to driving the table in the directions indicated in the claims (Fig. 10). The first movable base comprises a magnet and the actuator comprises one or more coil assemblies (col. 22, lines 1-47). Korenaga also discloses the support structure comprising bellows (col. 21, line 63 – col. 22, line 21).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8, 35, 36, 39, 40, 43, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horikawa et al. (Horikawa) in view of Lee (6,323,494).

Horikawa discloses the claimed invention as discussed above; however, Horikawa does not disclose EI core type actuator and support structure of bellows. Lee discloses in col. 2, line 58 – col. 3, line 30, use of EI core type actuator and support structure of bellows. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide EI core actuator and bellows to the invention of Horikawa in order to provide large dynamic range and to allow movement in more than one degrees of freedom as taught by Lee in col. 2, line 58 – col. 3, line 30.

Claims 8, 35, 36, 39, 40, 43, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Korenaga et al. (Korenaga) in view of Lee (6,323,494).

Korenaga discloses the claimed invention as discussed above; however, Korenaga does not disclose EI core type actuator and support structure of bellows. Lee discloses in col. 2, line 58 – col. 3, line 30, use of EI core type actuator and support structure of bellows. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide EI core actuator and bellows to the invention of Korenaga in order to provide large dynamic range and to allow movement in more than one degrees of freedom as taught by Lee in col. 2, line 58 – col. 3, line 30.

Response to Arguments

Applicant's arguments have been considered, but they are not persuasive. Applicant simply indicates that the reference do not teach the claimed elements. Applicant is respectfully

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requested provide an argument as to why the references do not teach the flexible member as claimed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Kim whose telephone number is (571) 272-2120. The examiner can normally be reached on Monday-Thursday from 8:30 AM to 6:00 PM. The examiner can also be reached on alternate Fridays during the same hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on 571-272-2112. The fax phone numbers for the organization where this application or proceeding is assigned is 703 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571 -272-2800.

A handwritten signature in black ink, appearing to read 'Peter B. Kim', with a stylized flourish at the end.

Peter B. Kim

Patent Examiner

February 25, 2004